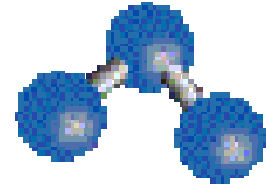


# Dallas/Fort Worth Ozone Update

**Presentation to the  
Lake Highland Exchange Club  
June 27, 2003**

# What is Ozone?

- Ozone, or smog, is an odorless, colorless gas composed of three oxygen atoms.



- Ozone occurs naturally about 10 to 30 miles above the earth and protects us from the sun's harmful ultraviolet rays.



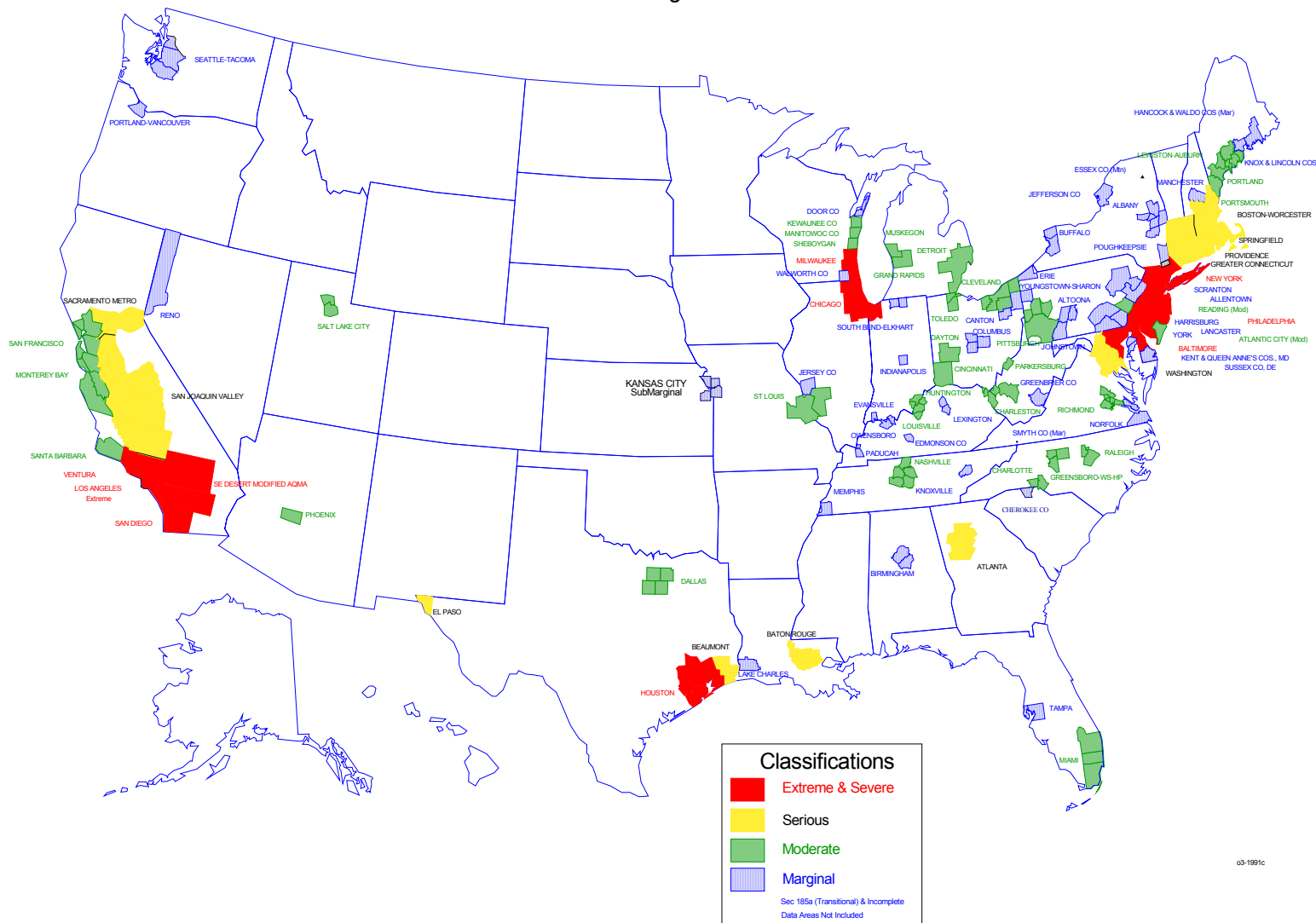
- However, at ground-level in the air we breathe, ozone poses serious risks to human health.



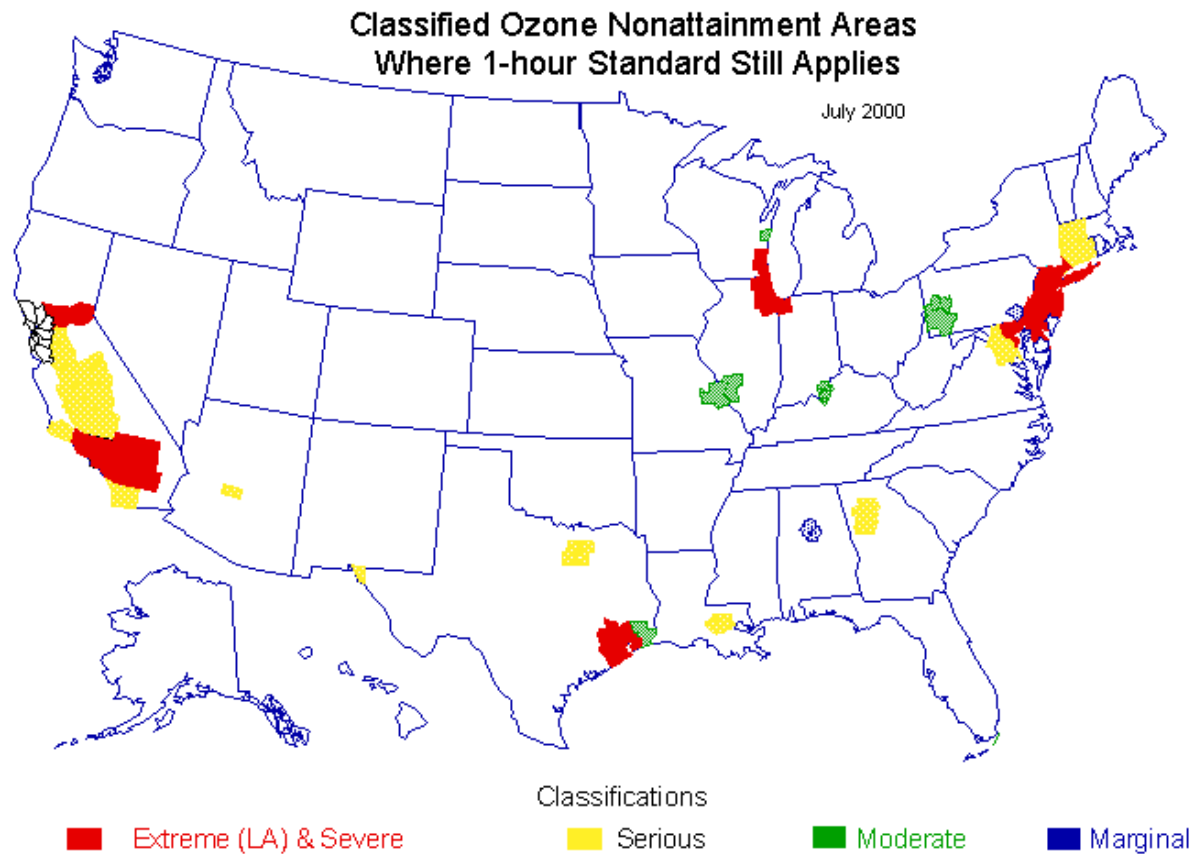
# 1992 Ozone Nonattainment Areas - Total 98

## Classified Ozone Nonattainment Areas

Initial Designations 1991-1992



# 2001 Ozone Nonattainment Areas - Total 33



San Francisco is Classified Other / Sec 185A & Incomplete Data Areas Not Included

# Where Does Ozone Come From?

- Ozone is not emitted directly into the air but is created by a chemical reaction in the air:



VOC + NO<sub>x</sub> + Heat + Sunlight = Ozone

- Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) come from cars, trucks, buses, power plants, industrial facilities, and other sources.



# Why is Ozone Bad to Breathe?

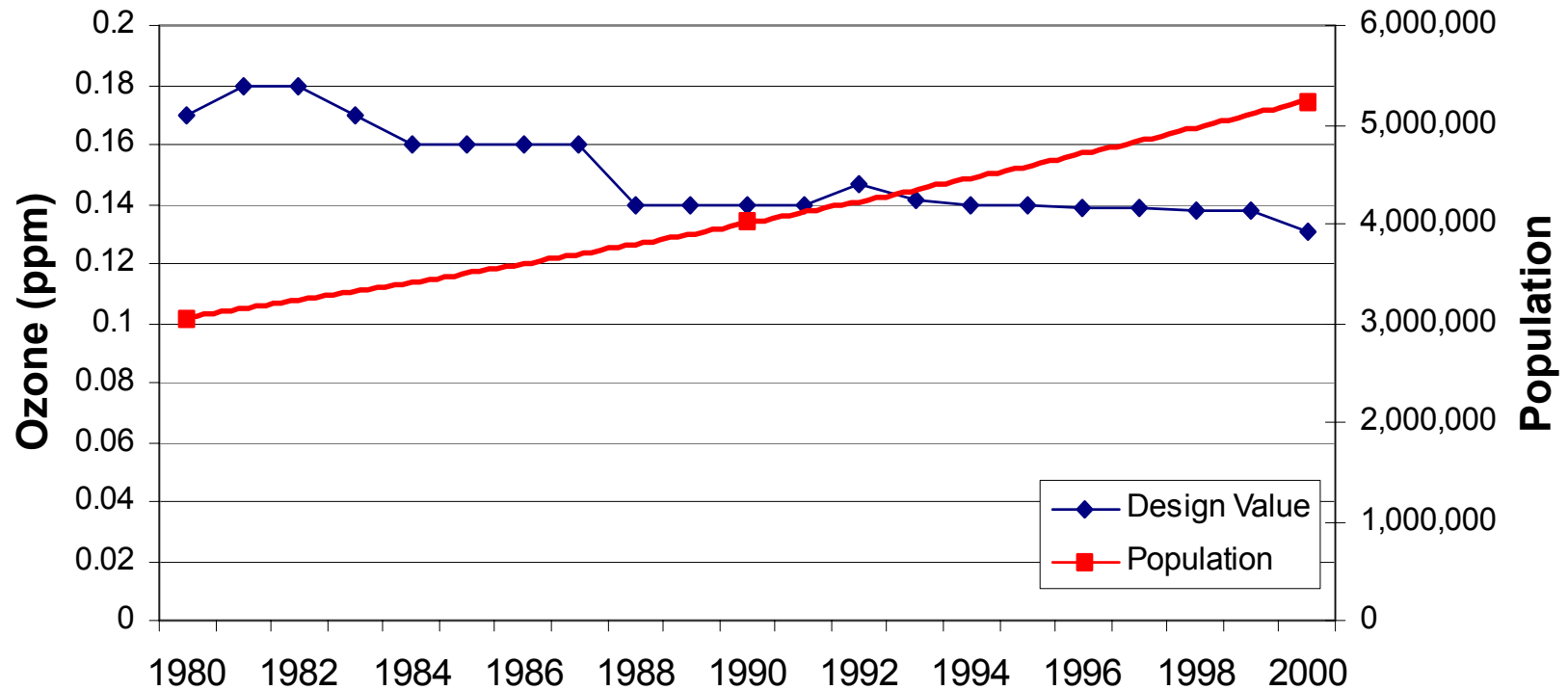
- Ozone can irritate lung and airways, and cause inflammation much like a sunburn on your lungs.

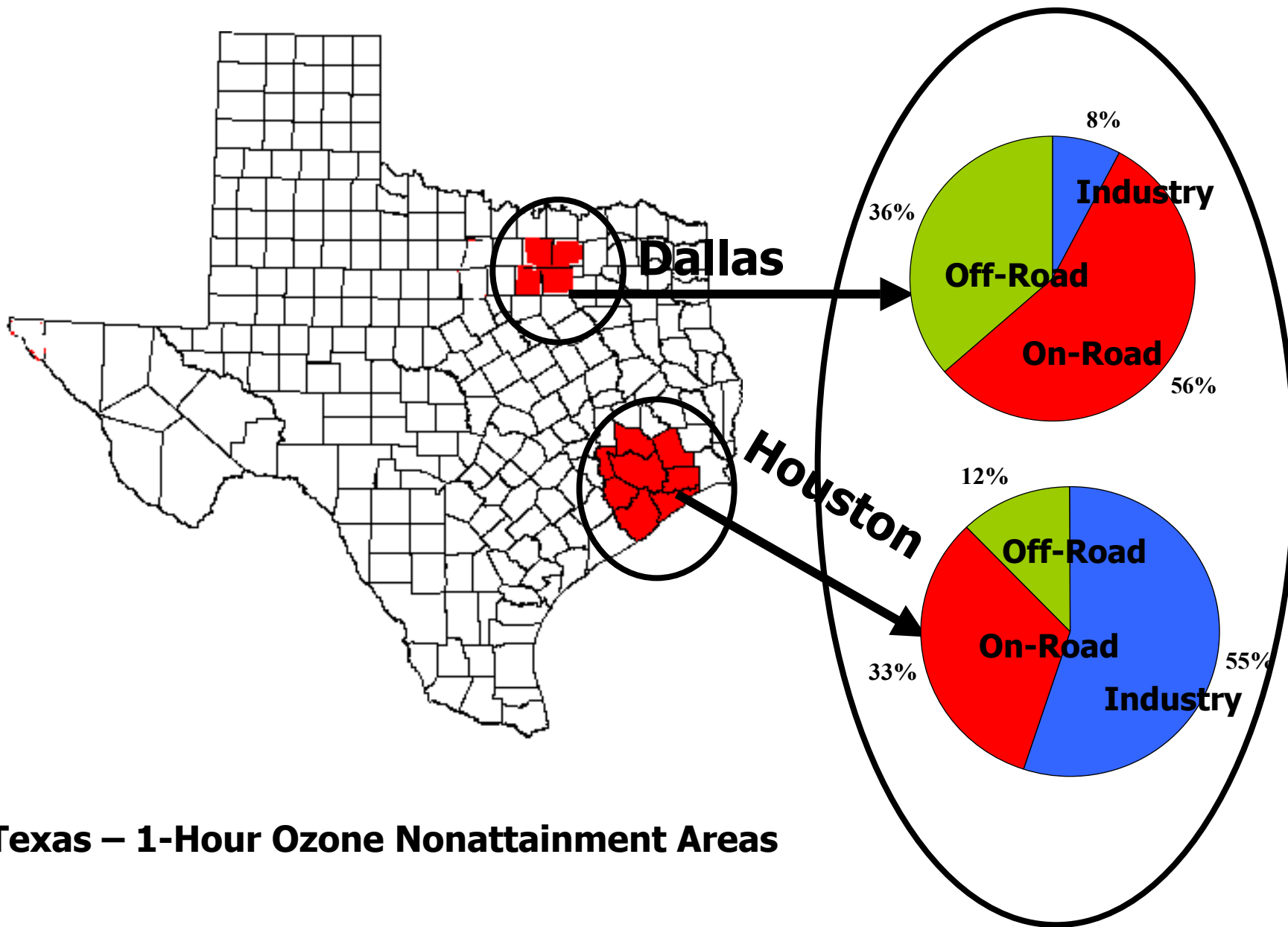


- Ozone can aggravate respiratory illnesses such as asthma.
- 10 to 20 % of all summertime respiratory-related hospital visits are associated with ozone pollution.



## DFW Design Value Versus Population 1980-2000





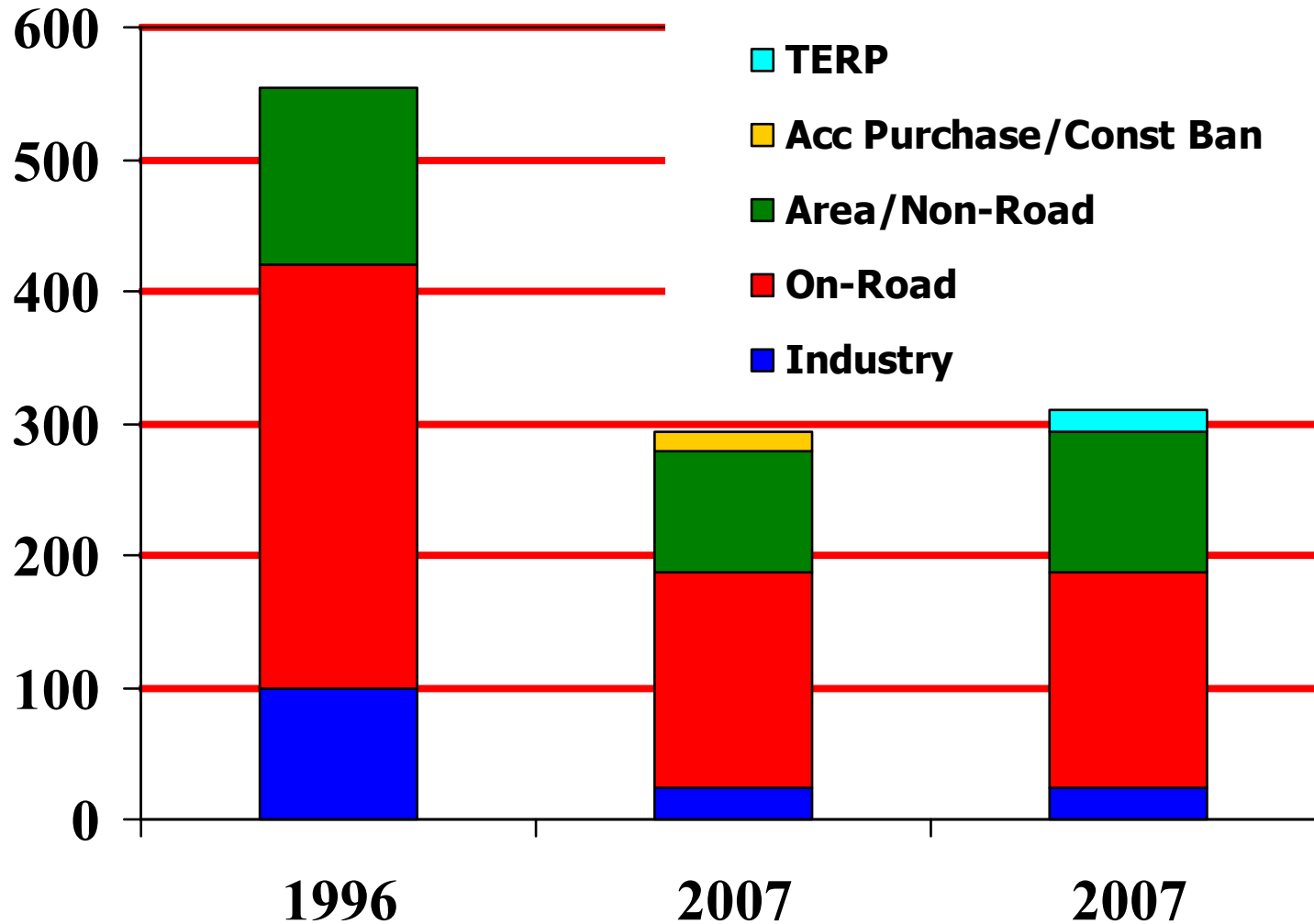
**Texas – 1-Hour Ozone Nonattainment Areas**



# How Do We Control?

- **Set standards.**
- **Designate areas as “nonattainment”.**
- **Require States to develop control plans named State Implementation Plans (SIPs).**
- **SIPs must establish controls on sources emitting the pollutants.**
- **Controls should bring area into attainment by a specific date.**
- **Penalties for not attaining.**

# The Dallas/Fort Worth Plan



# DFW SIP CONTROL STRATEGY

## State/Local NO<sub>x</sub> Reductions (tons/day)

• Electric utilities, industrial sources	129
• Vehicle Inspection/maintenance	55
• <b>TERP*</b>	<b>16</b>
• Airport Ground Support Equipment	10
• Speed Limits	5
• Voluntary Mobile Emissions Program	5
• Transportation Control Measures	5
• Low emission diesel fuel	4
• Non-road gasoline engines	2
• Water heaters, small boilers	1
– Total	232

**\*TERP replaces withdrawn rules**

# **TEXAS EMISSION REDUCTION PROGRAM (TERP)**

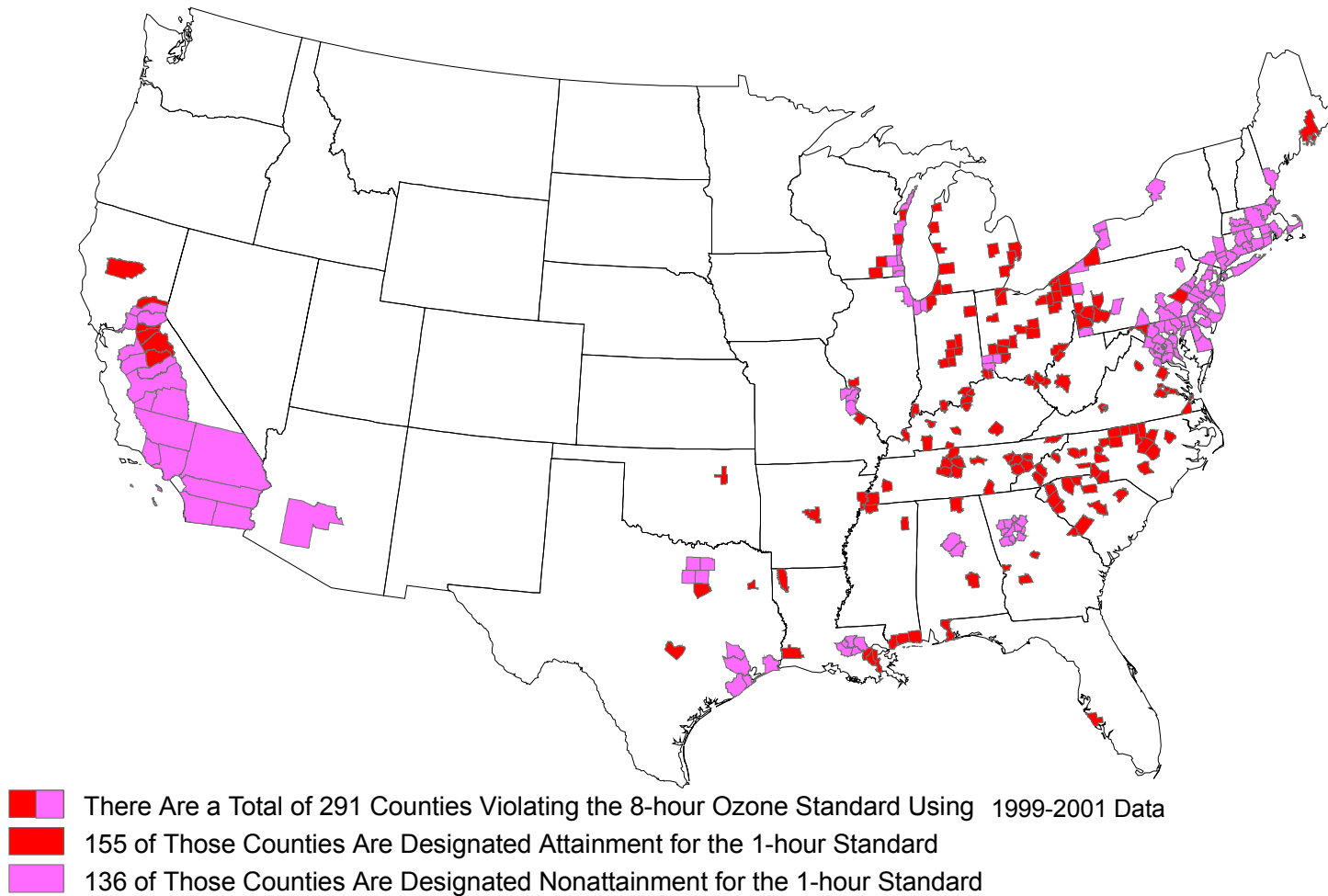
- **Instituted by Senate Bill 5.**
- **Replaced withdrawn rules for Accelerated Purchase of TIER2/3 cleaner diesel engines and the Construction Time Shift**
- **Heavy Duty Diesel Retrofit Subsidy Modeled After California's Carl Moyer Plan**
- **Signed by Governor June 22, 2003 as SB 1365.**

## DFW SIP NEXT STEPS

- Work needed to complete the job:
  - ★ **Legislature fixed the TERP funding shortfall.**
    - State recently resolved litigation on cement plants rule.
- Overcome ruling by the D.C. Court and 5<sup>th</sup> Circuit Court on Transport – may require reclassification to severe
- Mid-Course Review - May, 2004
- 8-hour ozone designations and a new plan

# Counties violating the 8-hr ozone NAAQS

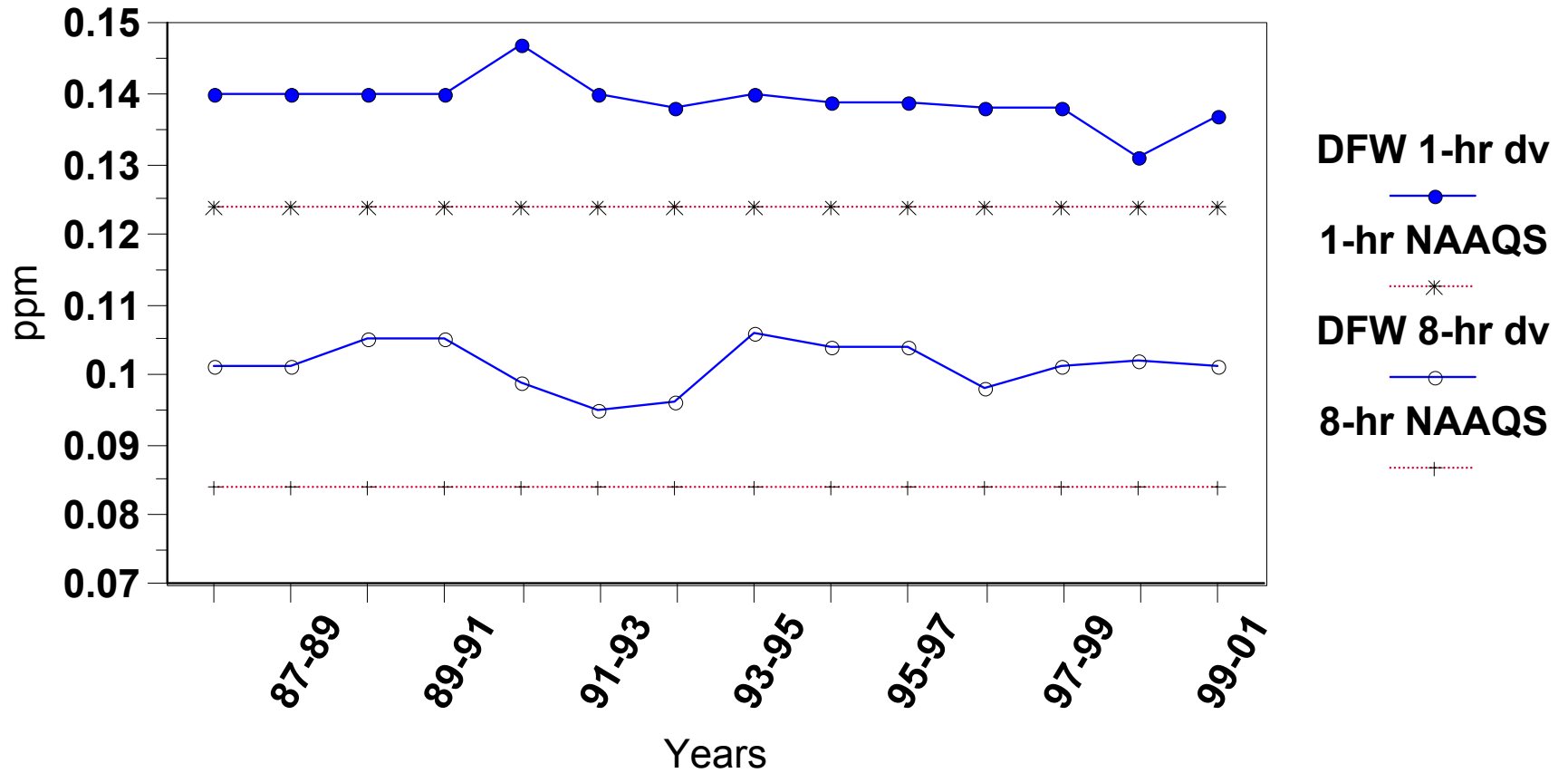
## 1999-2001



# Ozone Concentration Trends

Dallas/Fort Worth, Texas

1-hour/8-hour design value trends



1-hr NAAQS = 0.124 ppm

8-hr NAAQS = 0.084 ppm

# 8-Hour Schedule

June 2003	Publish proposed implementation rule
July 15, 2003	States provide designation recommendations
Late 2003	Publish final implementation rule
April 2004	EPA signs final nonattainment designations (effective shortly after)
April-May 2007	Nonattainment area SIPs submitted to EPA (3 years from effective date)
2007-2021	Range of attainment dates

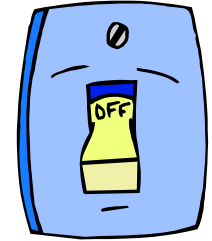


# The Air Quality Index

<b>Air Quality Index (AQI) Values</b>	<b>Levels of Health Concern</b>
<b>0 to 50</b>	<b>Good</b>
<b>51 to 100</b>	<b>Moderate</b>
<b>101 to 150</b>	<b>Unhealthy for Sensitive Groups</b>
<b>151 to 200</b>	<b>Unhealthy</b>
<b>201 to 300</b>	<b>Very Unhealthy</b>
<b>301 to 500</b>	<b>Hazardous</b>



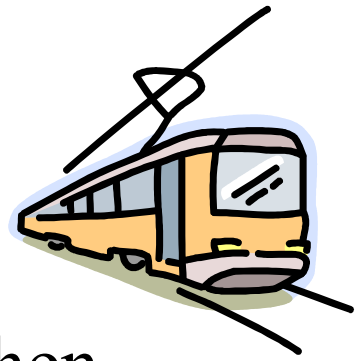
# What Can You Do?



- Conserve electricity, do not over cool or heat buildings, turn off lights and other appliances when you are not using them
- Look for the energy star label ([www.energystar.gov](http://www.energystar.gov)) when purchasing computers, TVs, VCRs, appliances, lighting, etc.
- Drive less, keep your car well maintained, your tires properly inflated, and your inspection/emissions sticker up-to-date
- Use public transportation, bike, and walk when possible
- Purchase low-emitting and fuel efficient vehicles ([www.epa.gov/autoemissions](http://www.epa.gov/autoemissions))



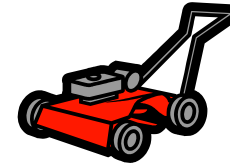
# What Can You Do?



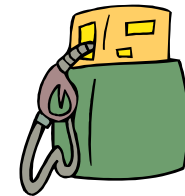
- It is especially important to take action when ozone levels are predicted to be high

- Share a ride or take public transportation

- Cut your grass after 6 pm

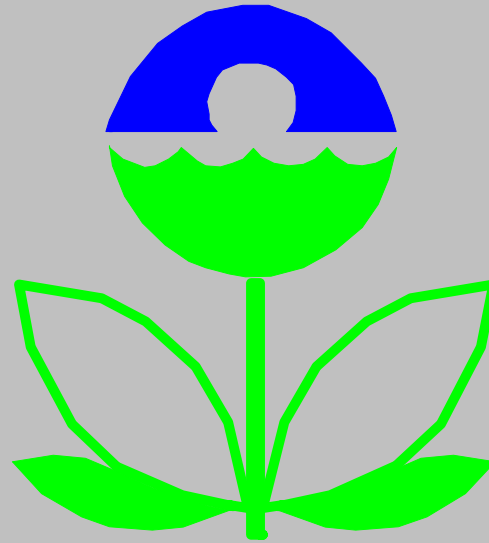


- Refuel your car after 6 pm



- Combine your errands into one trip

- To protect your health, avoid strenuous outdoor activities when ozone levels are high



**QUESTIONS?**